

REMARKS/ARGUMENTS

The Applicants respectfully request reconsideration of the rejections set forth in the Final Office Action mailed on June 17, 2003. Claim 23 has been canceled. Claims 1, 7, 10, 12, and 20 have been amended. Entry of these amendments is respectfully requested. The amendments present subject matter that was originally present in now canceled claim 23. Claims 1-20 and 22 are pending in this Application.

TELEPHONE INTERVIEW

Examiner Paul Gurzo is thanked for the courtesy of a telephone interview extended to Applicants' representative on July 16, 2003. During that interview, the rejected claims were discussed with reference to the cited prior art. The reason presented at the interview that appeared to warrant favorable action is that the setting of the high pass filter at both the first and second voltage levels are predetermined, as originally present in now canceled claim 23. As such, the Examiner later suggested for the Applicants to incorporate this into each of the independent claims. Furthermore, the Examiner will perform a new prior art search contingent upon an appropriate amendment (e.g., by adopting Examiner's suggestions) to claims 1, 7, 10, 12, and 20.

PATENTABILITY OF CLAIMS

The Examiner rejected claims 1-6, 10-12, 17-20, and 22-23 under 35 U.S.C. 102(b) as being anticipated by Iwasaki (4,983,830). The Examiner also rejected claims 7-9 and 13-16 under 35 U.S.C. 103(a) as being unpatentable over Iwasaki, and further in view of Lo et al. (6,344,750). The Applicants respectfully traverse the rejections.

Independent claims 1, 7, 10, 12, and 20 have been amended to emphasize that the first and second voltage levels are predetermined. Support for the amendment of claims 1, 7, 10, 12, and 20 can be found in canceled claim 23, FIG. 3A-3C, and pg. 7 lines 10-14.

The Final Office Action states that Iwasaki discloses setting a filter at a first and second voltage level. The Applicants point out that Iwasaki discloses adjusting the potential of the grid electrode 45 (e.g., the first voltage level) so that the detected signal level becomes the same as that of the reference signal. Thereafter, the reference signal level of the comparator 50 is changed "*to find*" a potential of the grid (e.g., the second voltage level) at which a constant

intensity of the secondary electrons is obtained. (See Column 3, Lines 56-61) Assuming that the reference signal was predetermined, Iwasaki only discloses setting a filter at a predetermined first voltage level. However, Iwasaki does not disclose setting the filter at a predetermined second voltage level. This is because the comparator 50 is changed "to find" a potential of the grid at which a constant intensity of the secondary electrons is obtained, indicating that the potential of the grid is not predetermined.

In regards to the present invention, the setting of a filter at a predetermined first and second voltage levels allows the ability to determine a differential electron intensity level from corresponding first and second electron intensity levels that are detected at the first and second voltage levels respectively. Although Iwasaki discloses in claim 1 "energy filtering means ... for discriminating the secondary electrons emitted by the irradiated specimen according to their energy levels", Iwasaki does not disclose determining a differential electron intensity level as claimed herein. In fact, as with the present invention, energy filters (e.g., high pass filters) are conventionally used for discriminating secondary electrons based on their energy levels. However, the present invention further determines a differential electron intensity level by calculating the difference (e.g., via subtraction) between the first electron intensity level and the second electron intensity level. For example, the differential electron intensity level for an inspected area on a specimen is determined by subtracting the detected intensity level at the higher energy setting from the detected intensity level at the lower energy setting. The obtained differential value corresponds to electrons having energy within the range of the first and second filter settings. This obtained differential value is used, among other things, to generate an image of the specimen for inspection purposes. (See Abstract)

Since Iwasaki does not teach or suggest all of the limitations of claims 1, 10, 12, and 20, Iwasaki cannot render these claims as being anticipated under 35 U.S.C. 102(b). Similarly, since Iwasaki along with Lo et al. do not teach or suggest all of the limitations of claim 7, Iwasaki in further view of Lo et al. cannot render this claim as being obvious under 35 U.S.C. 103(a). The dependent claims of claim 1, 7, 10, 12, and 20 are patentable for at least the same reason as their corresponding independent claims. In view of the foregoing, the Applicants respectfully request that the rejection of claims 1-20 and 22 be withdrawn.

CONCLUSION

The Applicants believe that the adoption of the Examiner's suggestions have been appropriately incorporated herewith and respectfully maintain that all pending claims are in condition for allowance. Therefore, the Applicants respectfully request a Notice of Allowance for this Application from the Examiner. Should any unresolved issues remain, the Examiner is encouraged to contact the Undersigned at the telephone number provided below.

If any fees are due in connection with the filing of this Amendment, the Commissioner is authorized to deduct such fees from the Undersigned's Deposit Account No. 50-0388 (Order No. KLA1P035).

Respectfully submitted,
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